START

0025136 7

ENGINEERING CHANGE NOTICE

Page 1 of 6

1. ECN XXXXXXXXX

Proj. ECN B-714-150

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.		4. Date
Supplemental [X] Direct Revision [] Change ECN [] Temporary [] Standby [] Supersedure [] Cancel/Void []	M. A. McLean, KEH, E6-42, 6-5529		09/23/92
	5. Project Title/No./Work Order No. GROUTED WASTE DISPOSAL FACILITIES B-714/ER8007	6. Bldg./Sys./Fac. No. 218-E-16.	7. Impact Level 3Q /SC-2
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) SEE BLOCK 12	9. Related ECN No(s). N/A	10. Related PO No. N/A

11a. Modification Work	11b. Work Package No.	11c. Modification Work Complete	11d. Restored to Original Condition (Temp. ECN only)
[] Yes (fill out Blk. 11b) [X] No (NA Blks. 11b, 11c, 11d)	N/A	N/A Cog. Engineer Signature & Date	N/A Cog. Engineer Signature & Date

12. Description of Change

SC-2: Item 2 only

SC-3: Item 1 & 3

BLOCK 8: Drawings H-2-77596 SH 1, REV 1
H-2-77630 SH 1, REV 0
Specification B-714-C2, Rev 1 (V-B714C2-003)

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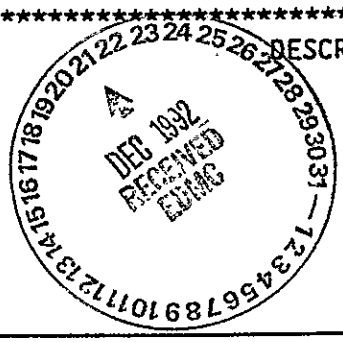
DESCRIPTION OF CHANGES ON SUCCEEDING PAGES



APPROVED FOR PUBLIC RELEASE
10/22/92 N. Solis

TKE 9-24-92

13a. Justification (mark one)							
Criteria Change	[X]	Design Improvement	[X]	Environmental	[]		
As-Found	[]	Facilitate Const.	[X]	Const. Error/Omission	[]	Design Error/Omission	[X]

13b. Justification Details

(FC-Items 3B & D): These changes provide flexibility to the contractor in selecting a rigid foam-in-place product that meets minimum requirements. (FC-Items 3C & E): The K-Factor requirement is deleted because it is not critical for piping. Compressive strength perpendicular to rise requirement is replaced by shear strength perpendicular requirement. This gives assurance on foam strength, without requiring Contractor to

JUSTIFICATION DETAILS CONTINUED ON PAGE 3

EDC

14. Distribution (include name, MSIN, and no. of copies)

KEH DISTRIBUTION		J. K. Epperley	R1-29
Const Doc Cntl	E2-50	K. S. McCullough	N1-83
		R. K. Sanan [4]	R4-05
WHC DISTRIBUTION		T. W. Staehr (PE)	R3-27
Project Files	R1-28	J. E. Vanbeek	R3-27
M. W. Cling	H4-57	G. H. Weissberg	R3-10
T. K. Cordray	S1-54	DOE	
STA. 6		A. G. Lassila	A5-10
STA. 10			

RELEASE STAMP

OFFICIAL RELEASE BY WHC

DATE SEP 30 1992

Sta. 4

5

A-7900-013-2 (06/92) GEF095

Lupe Garza 46-76

A-7900-013-1 (11/8)

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1) B-714-150

esign Verification Required	16. Cost Impact				17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION			
[X] Yes	Additional	[X] $2,272.—	Additional	[X] $ 4,000.00	Improvement	[] N/A
[] No	Savings	[] $	Savings	[] $	Delay	[]

8. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]		[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision

20. Approvals

	Signature	Date		Signature	Date
OPERATIONS AND ENGINEERING			ARCHITECT-ENGINEER		
Cog./Project Engineer	[signature]	9-28-92	PE	[signature]	9/28/92
Cog./Project Engr. Mgr	[signature] for W.W. Rutherford	9-28-92	QA	[signature]	9-25-92
QA	Sharon K [signature]	9-28-92	Safety	D Lundgren	9-25-92
Safety			Design-PIPING:	M. A. McLean	9-24-92
Security			Other-ELEC:	[signature]	9-24-92
Proj. Prog./Dept. Mgr.			ENVIR:	[signature]	9-24-92
Def. React. Div.			PLE:	[signature]	9-28-92
Chem. Proc. Div.			COA:	[signature]	9-28-92
Def. Wst. Mgmt. Div.			DEPARTMENT OF ENERGY		
Adv. React. Dev. Div.					
Proj. Dept.					
Environ. Div.			ADDITIONAL		
IRM Dept.					
Facility Rep. (Ops.)					
Other					

JUSTIFICATION DETAILS (Cont.)

have vendor provide additional testing of product.
(DE-Item 3F): Pneumatic Leak Test pressure is changed to meet the requirement of the ASME B31.3 Code.
(FC-Items 1 & 2A, B, & D): To provide more space for coiling the sensing cable.
(DI-Item 3A): This change makes the specification requirements clear regarding threaded joints, pipe sealant, and seal welding.
(CC-Item 2A & C): WHC LOI #27 (#9255880, dated 08-05-92). Delete piping, cathodic protection & leak sensing cable on all piping intended for future vaults.
CHANGES MADE TO SAFETY CLASS 2 ITEMS DO NOT IMPACT THE INTEGRITY OF THE ORIGINAL FACILITY DESIGN.

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DESCRIPTION OF CHANGES

1) H-2-77596 Sh 1, Rev 1

PLAN (Z D7): Modify as shown on page 5 of this ECN.

2) H-2-77630 Sh 1, Rev 0

A) Revise Sensing Cable Arrangement Plan as shown on page 6 of this ECN.

B) Revise Note 2 as follows: replace "...END OF PIPE..." with "...DESIGNATED PULL POINTS...".

C) Delete Note 6 and replace with "NOT USED".

D) Revise Note 7 by changing "PP-11" to "PP-11a".

CONTINUED ON PAGE 4

3) SPECIFICATION B-714-C2, REV 1, SECTION 15493

A) Paragraph 2.1.2: Change to read as:

2.1.2 Pipe Joint Sealant for Threaded Joints.

a. Material: Chesteron "Goldend" No. 7298; Federal Process Company "JC-30"; Lake Company "Slic-Tite" with teflon.

b. Application: A threaded joint designated to be seal welded shall be made up without sealant. A joint containing sealant which leaks during leak testing may be seal welded, provided all sealant is removed from exposed threads.

B) Paragraph 2.1.5.1: Change "2.2 to 2.8 lb/cu ft" to "2.2 lb/cu ft minimum"

C) Paragraph 2.1.5.2: Delete "and 27 psi perpendicular to rise".

D) Paragraph 2.1.5.4: Change "90 to 95 percent" to "90 percent minimum".

E) Paragraph 2.1.5.6: Replace with new paragraph as follows:

2.1.5.6 Minimum shear strength: 35 psi perpendicular when tested in accordance with ASTM C 273.

F) Paragraph 3.2.3.3.a: Change "90" psig Test Pressure to "66" psig.

G) Paragraph 1.1.1.4:

- Delete C 518-85 reference in its entirety.
- Add C 273-61 (1988) Standard Test Method for Shear Properties in Flatwise Plane of Flat Sandwich Constructions or Sandwich Cores

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REGISTERED ENGINEER REVIEW
PIPING (Item 1 & 3)

ALBERT W. BJORKEDAL
STATE OF WASHINGTON
20807
REGISTERED
PROFESSIONAL ENGINEER

9/27/92

EXPIRES 9/18/94

REGISTERED ENGINEER REVIEW
ELEC (Item 2)

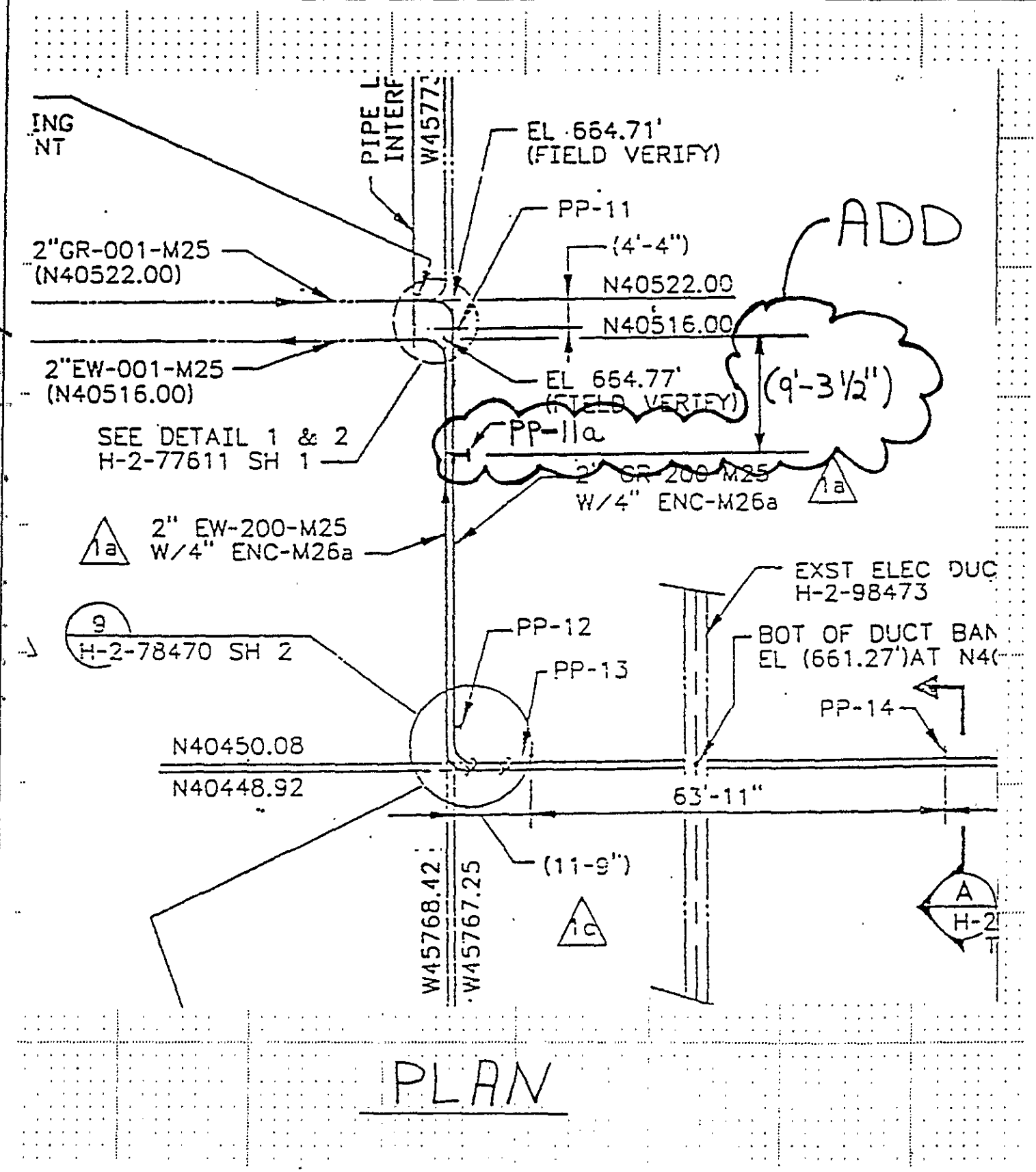
GREGORY P. McDONALD
STATE OF WASHINGTON
20572
REGISTERED
PROFESSIONAL ENGINEER

9-24-92

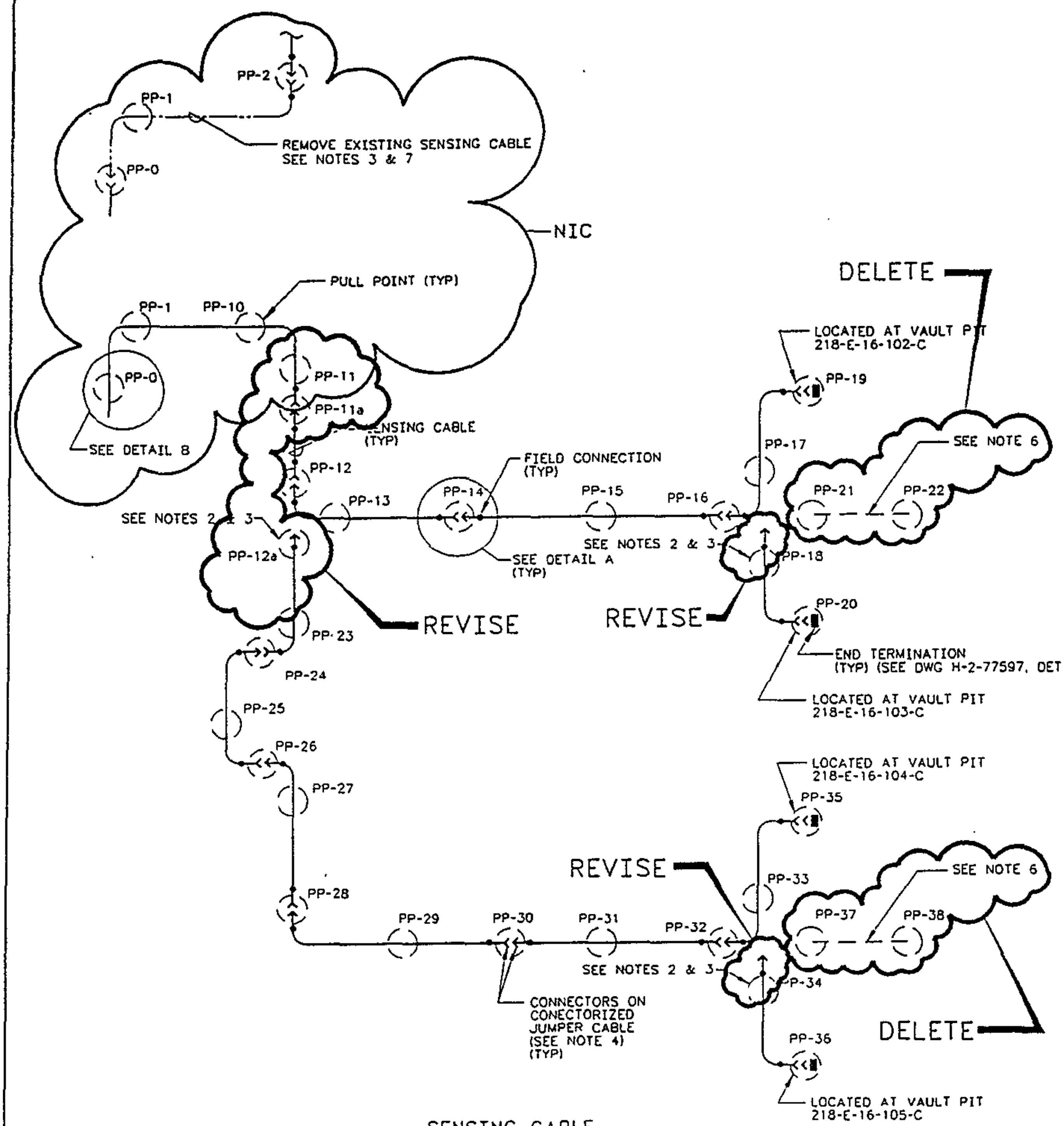
EXPIRES 9/30/93

KAISER ENGINEERS HANFORD | **ENGINEERING CHANGE NOTICE SKETCH**

Ref. Dwg.	Sh.	Rev.	Prepared By	Checked By	ECN No.	Page
H-2-77596	1	1	M A McLean	Dena McDonnan	B-714-150	5/6



KAISER ENGINEERS HANFORD			ENGINEERING CHANGE NOTICE SKETCH			
Ref. Dwg. H-2-77630	Sh. 1	Rev. 0	Prepared By TE COYNE	Checked By A. R. [signature]	ECN No. B-714-150	Page 6/6



SENSING CABLE ARRANGEMENT PLAN

SEE DRAWINGS H-2-77596 &
H-2-78467 FOR PIPING PLANS

ECN B- 114130